

most marked degree the normal and typical forms of the Fish. The salmon and herrings of our waters are, of all fishes, those which have best preserved the original forms; they are also those which have the longest known pedigrees.

The great Ctenoid division, so varied and important at the present day, has no known root before the Cretaceous epoch. It is represented by a certain number of types bound together by numerous common characters, especially of general appearance and external covering. These types form the base of a large bundle or knot, the various threads of which have become, through successive ages, gradually more and more differentiated and widely removed from each other and the common stock.

The third group which has played an important part in the history of these Teleosteans is that of the Hoplopleuridæ, more isolated than the preceding ones. There is no indication of this group in the Jurassic period, nor any continuation of it in the Tertiary.

These three groups form almost the totality of the Teleosteans. There would now only remain to add, in the present state of our knowledge, some few isolated genera with whose history we are but incompletely acquainted, and which would seem to be subordinate to the preceding ones as much on the ground of this isolation as on that of the small number of individuals representing them.

#### BIBLIOGRAPHICAL NOTICES.

*A History of British Sessile-eyed Crustacea.* By C. SPENCE BATE and J. O. WESTWOOD. Part XIII. 8vo. Van Voorst. London, 1866.

THE appearance of a new part of this valuable work, after an interruption of nearly three years (the twelfth part was published in August 1863), leads us to say a few words about it, in the hope that, however we may regret such delays, the interval in the present case may have given time for the training of a new school of students, to whom such a book as this will be welcome.

In the first volume, completed in 1863, the authors nearly finished their descriptions of the British species of true Amphipoda, leaving only the Hyperine forms for the commencement of the second volume. The *Amphipoda aberrantia* of Mr. Spence Bate, including the *Læmodipoda* of Latreille, with the addition of the *Dulichiidæ* of Dana, are completed in the part just published, which also contains the general remarks on the Isopodous order.

In form, the Crustaceans here described are among the most singular of the inhabitants of the sea, although their relationship to the true Amphipoda is so evident that one feels surprised they could

ever have been separated therefrom as a distinct order. It seems to us, however, that the authors have to a certain extent been in error in placing the *Dulichiidæ* among the aberrant Amphipoda, their true alliance being evidently to the typical section, with which they are described as agreeing in every respect, except in having the last two segments of the "pereion" fused into one, and the last segment of the "pleon" absent. In all other characters, such as especially the full development of the tail, the absence of rudimentary feet, and the separation of the coxæ from the segments on which they stand, the *Dulichiidæ* agree with the higher Amphipoda, and differ in the same proportion from the aberrant forms, whether we take the spectral *Caprellæ* or the louse-like *Cyami* as typical of the second group. This, however, is an objection easily got over; and we can only express a hope that the renewed publication of the book may now proceed regularly, and that it will find as many purchasers as its careful elaboration and the beauty of its printing and illustration certainly entitle its publisher to expect.

*A Catalogue of Phytophaga (Coleoptera, Pseudotetramera)*. By the Rev. HAMLET CLARK. Part I. *With an Appendix, containing Descriptions of new Species*, by H. W. BATES and the Rev. HAMLET CLARK. 8vo. London: Williams and Norgate, 1866.

During the eighteen years that have elapsed since the completion of Lacordaire's classical Monograph of the Phytophaga, entomologists have been most industrious in describing new genera and species of this most attractive group of beetles. The result of this industry is the accumulation of a vast mass of more or less scattered descriptions of newly discovered forms, which renders it exceedingly difficult for an entomologist not making a special study of the group to arrive at anything like a clear notion of the number of species and genera already known. The Rev. Hamlet Clark (the author of the Catalogue now before us) and Mr. J. S. Baly may be noted as among the most active cultivators of this particular department of entomology, the latter especially exhibiting a power of production which has already rendered his publications very voluminous. It is a question, indeed, how far he may be regarded as doing good service to science by the publication of such an infinity of detached notices; but it is quite clear that, until he begins to devote his energies to some other group of insects, that monographic revision of the Phytophaga which has already become almost an absolute necessity, and which will undoubtedly bring about the suppression of a host of modern so-called genera, had better be postponed.

In the meanwhile entomologists will be thankful to the Rev. Hamlet Clark for the catalogue with which he proposes to furnish them, and of which the first part, including the four Crioceride groups, Sagridæ, Donacidæ, Crioceridæ, and Megalopidæ, is now before us. In this catalogue we find the generic and specific synonymy of the insects belonging to these groups concisely but clearly set forth, with full